National Aeronautics and
Space Administration
Office of the Administrator
Washington, DC 20546-0001

July 28, 2009

Dr. Kenneth M. Ford
Chairman
NASA Advisory Council
Washington, DC 20546

Dear Dr. Ford:

Enclosed are several of the responses to the recommendations from the April 16, 2009, quarterly meeting of the NASA Advisory Council. The Space Operations, Exploration, and Science Mission Directorates, as well as the Offices of the Chief Engineer, Safety and Mission Assurance, Human Capital Management, and Public Affairs are all actively engaged in addressing the points that the Council has raised. We will be providing the responses to the remaining recommendations within the next several weeks.

Please do not hesitate to contact me if the Council would like further background on the information provided in the enclosures.

I look forward to receiving continued advice from the Council, and I appreciate your service.

Sincerely,

Charles F. Bolden, Jr.
Administrator

3 Enclosures:
1. HCC-09-01
2. HCC-09-02
3. SC-09-03

Tracking Number: **HCC-09-01**

Addressing the need to infuse new talent and knowledge into the NASA workforce

NAC Recommendation

Continued leadership in space science and exploration requires the constant infusion of new ideas and state-of-the-art knowledge provided by a vibrant and creative workforce. Therefore, NASA is encouraged to pursue avenues that will facilitate new hiring, particularly at the entry-level.

Major Reasons for the Recommendation

NASA's current workforce consists primarily of mid-level and senior-level professional Scientists and Engineers. Given the Constellation program, there is a need to ensure that the NASA workforce continues to have the skills and knowledge to support advanced, state-of-the-art technology. Therefore, NASA needs to focus on hiring "fresh-out" talent, which is defined as individuals who have obtained a degree within the past three years. Injecting the workforce with new ideas and newly-developed technological knowledge will ensure that NASA has the talent needed to support current and future aeronautics missions.

NASA Response

NASA concurs with the NASA Advisory Council's recommendation. NASA affirms its commitment to maintaining a healthy pipeline that brings entry-level hires into the Agency and sets them up to contribute to current and future mission success. We acknowledge that employment patterns over the past 15 years (e.g., constrained hiring that resulted in fewer entry-level people being hired) have limited the flow of hires in that pipeline and that NASA needs to reinvigorate it.

NASA is already taking steps to address the issue raised by the NAC, having secured support from NASA senior leadership and from the Office of Science and Technology Policy (OSTP) to pursue increased hiring specifically for the purpose of enhancing the workforce pipeline.

NASA has embarked upon two hiring initiatives:

(1) Early Career Hiring Initiative--NASA kicked off a pilot program designed to target approximately 200 additional hires in FY 2009 as a near-term infusion of entry-level talent. NASA has undergone an extensive process to identify opportunities to fill

entry-level positions where there is a need to add skills and strengthen pipelines and where work is available in the near term for entry-level hires to perform. Toward that end, the Office of Human Capital Management is partnering with NASA's Mission Directorates, the Office of Diversity and Equal Opportunity, and the Office of Education to provide guidance and direction to the Centers on a strategic hiring plan that targets recruitment efforts that are consistent with merit system principles.

(2) Ongoing Commitment--NASA has committed to using a higher proportion of our overall annual hiring opportunities (i.e., those created through natural attrition) on entry-level hires. Centers have been directed to replenish losses with a higher number of entry-level hires immediately.

These strategic hiring initiatives are intended to correct long-standing issues. NASA understands the need to infuse new talent and knowledge into our workforce. We believe that these two initiatives begin to pave the way toward reaching our goals of ensuring that NASA has the right skills at the right time, and to increase the number of entry-level hires within NASA.

Tracking Number: **HCC-09-02**

Assessment of how NASA TV can be more effective and what is required to accomplish that goal

NAC Recommendation

Assessment of how NASA TV can be more effective and what is required to accomplish that goal

Major Reasons for the Recommendation

The Committee's fact-finding sessions have determined that NASA TV is underfunded and has not been upgraded on an Agency-wide basis with new technology such as On-Demand and High-Definition TV.

NASA TV was initiated, in part, to support the Shuttle Program. Now that Shuttle retirement is planned for 2010, it is reasonable to reassess this important communication vehicle to ensure that NASA TV continues to be a valuable asset to the American public. Additionally, new technology, particularly the emergence of Internet-based delivery, further supports the need to examine NASA TV to ensure that it encompasses the state-of-the-art technology required to remain a viable communication resource. Therefore, it is imperative that NASA seek an external source to complete a comprehensive study to evaluate the current content, effectiveness, and viewership of NASA TV and to recommend a clear plan and set of themes to ensure its most effective utilization.

NASA Response

NASA's Office of Strategic Communications and Office of Public Affairs concur with the Committee's conclusion that NASA TV is underfunded, as are other high-visibility operational multimedia resources that provide public insight and participation with NASA mission activities, such as its Internet homepage http://www.nasa.gov.

However, in FY 2009, NASA provided funding to upgrade the current satellite architecture and production facilities at Headquarters to contemporary high-definition (HDTV) standards. This will allow much of the Agency to produce and distribute live video and other productions in the highest quality possible.

Despite funding challenges, NASA's communication capabilities continue to be recognized by the professional community. NASA TV was honored in 2009 with two Emmy Awards, and http://www.nasa.gov was awarded a Webby for the best Web site in the Federal Government by the leading international award honoring excellence on the Internet.

While a final solution to the ongoing fiscal resource issues for NASA's multimedia assets, including television and Internet, has yet to be addressed, the Agency has recognized the importance of maintaining these services that provide vital news and education information to the internal NASA workforce and the general public.

Concurrently, the Office of the General Counsel (OGC) is reviewing an unsolicited proposal for the development of a public television channel, featuring aerospace content, in collaboration with NASA. However, OGC believes that significant legal and policy issues would need to be reviewed and resolved prior to proceeding with the development of any television channel targeted for a public audience.

Beyond these efforts, and before any additional financial expenditures are considered to address the current recommendation or any other internal or external assessment options, the Chief of Strategic Communications and the Office of Public Affairs believe the current state of NASA TV and the Agency's suite of multimedia assets should be presented to the new NASA Administrator and Deputy Administrator after they are confirmed.

The ongoing interest and support of the Human Capital Committee are deeply appreciated.

Tracking Number **SC-09-03**

Form an Exoplanet Exploration Program Analysis Group under the Astrophysics Subcommittee

NAC Recommendation

Recommend NASA form an Exoplanet Exploration Program Analysis Group (ExoPAG) to conduct analyses at the request of the NAC Science Committee, the Astrophysics Subcommittee, and the Science Mission Directorate (SMD). The ExoPAG will take direction from the Astrophysics Subcommittee (APS), and report to APS.

Major Reasons for the Recommendation

Over 340 planets around other stars--exoplanets--have been found since the first discovery in 1989. Most exoplanets have masses greater than that of Jupiter. The Kepler mission, launched in 2009, is the first space mission designed to search for Earth-size exoplanets. A number of other advanced mission concepts have been conceived. Exoplanet exploration will be a major topic for the Astronomy and Astrophysics Decadal Survey. APS and SMD need tactical input from the community on matters related to the implementation of exoplanet exploration missions going into or coming out of the decadal survey process. The APS and Science Committee recommend formation of an Exoplanet Exploration Program Analysis Group (ExoPAG), analogous to the existing Analysis Groups under the Planetary Science Subcommittee. The APS will provide oversight and evaluation of ExoPAG activities.

NASA Response

NASA concurs and has taken steps to form an ExoPAG. A Terms of Reference (attached) has been created and, after coordination with the APS and the Science Committee, approved by SMD management. An ExoPAG Chair has been named, Dr. James Kasting of Pennsylvania State University, who is also a member of the APS. NASA is working with the ExoPAG Chair to establish an executive committee and plan an inaugural meeting.

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Exoplanet Exploration Program Analysis Group (ExoPAG) Terms of Reference

The Exoplanet Exploration Program Analysis Group (ExoPAG) is responsible for soliciting and coordinating community input into the development and execution of NASA's Exoplanet Exploration Program (ExEP). The ExoPAG serves as a community-based, interdisciplinary forum for analysis in support of Exoplanet exploration objectives and of their implications for architecture planning and activity prioritization and for future exploration. It provides findings of analyses to NASA through the NASA Advisory Council (the Council) within which the ExoPAG Chair is a member of the Astrophysics Subcommittee.

To carry out its role, the ExoPAG will:

- Articulate the key scientific drivers for exoplanet research;
- Evaluate the expected capabilities of potential ExEP missions for achieving the science goals of the Program;
- Regularly evaluate ExEP goals, objectives, investigations and required measurements on the basis of the widest possible community outreach;
- Articulate focus areas for needed mission technologies; and
- Identify related activities that enhance the ExEP mission portfolio such as ground-based observing, theory and modeling programs, and community engagement.

The Chair of the ExoPAG is drawn from the membership of the NAC Astrophysics Subcommittee and is appointed by the SMD Associate Administrator with the concurrence of the NAC Chair, following consultation with the Astrophysics Division Director, and the Chairs of the Science Committee and Astrophysics Subcommittee of the NAC. The Chair is assisted by an Executive Secretary, who serves as a single point of contact within NASA, and an executive committee that supports planning and activities of the group. The Executive Secretary is appointed by the Astrophysics Division Director. Nominations for the ExoPAG executive committee are solicited through an open "Dear Colleague" letter to the community, and appointments are made by the Astrophysics Division Director. The ExoPAG executive committee is constituted to achieve a functional balance among observers, theoreticians, instrumentation experts, and technologists, as well as a scientific balance across the disciplines of astrophysics, exoplanetary and planetary science, and astrobiology. The nominal term for executive committee members is three years, with initial appointments made for periods of one, two, or three years to facilitate continuity in the membership.

The ExoPAG will typically meet biannually or as otherwise needed as their tasks dictate. Tasking for ExoPAG activities may be initiated from SMD or the Science Committee and Astrophysics Subcommittee of the Council, in consultation with the ExoPAG Chair. The ExoPAG Chair will set the regular annual meeting schedule in consultation with the executive committee. The ExoPAG may choose to organize sub-groups to deal with specific issues and report their findings to the full group. The findings of each meeting and analysis activity will be reported to the Astrophysics Subcommittee and the Science Committee of the Council. Logistical support for the ExoPAG Chair will be provided through the Exoplanet Exploration Program Office on behalf of the SMD Astrophysics Division.

Concurrences

Douglas M. Hudgins

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Program Scientist, Exoplanet Exploration Program

28 May 2009
Date

Lia S. LaPiana

Lia S. LaPiana, NASA HQ
Program Executive, Exoplanet Exploration Program

May 28, 2009
Date

Jon A. Morse

Dr. Jon A. Morse, NASA HQ
Director, Astrophysics Division

5/29/09
Date

Dr. Paul L. Hertz, NASA HQ
Chief Scientist, Science Mission Directorate

6/1/09
Date

Dr. Edward J. Weiler, NASA HQ
Associate Administrator, Science Mission Directorate

6-1-09
Date